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WMAP Cosmological Parameters

Model:  $\Lambda\text{cdm+nrel}$ 

Data: wmap9+spt+act+snls3

$10^9 \Delta_{\mathcal{R}}^2$	$2.330^{+0.096}_{-0.097}$	$H_0$	$76.5 \pm 4.1 \text{ km/s/Mpc}$
$N_{\text{eff}}$	$3.97 \pm 0.66$	$A_{\text{clustered}}$	$< 13 \text{ (95\% CL)}$
$A_{\text{Poisson}}^{\text{ACT}}$	$14.0 \pm 2.6$	$A_{\text{Poisson}}^{\text{SPT}}$	$> 15 \text{ (95\% CL)}$
$\ell(\ell + 1)C_{220}/(2\pi)$	$5763 \pm 34 \mu\text{K}^2$	$d_A(z_{\text{eq}})$	$13522^{+511}_{-510} \text{ Mpc}$
$d_A(z_*)$	$13367^{+505}_{-503} \text{ Mpc}$	$D_v(z = 0.57)/r_s(z_d)$	$12.61 \pm 0.38$
$\eta$	$(6.23 \pm 0.13) \times 10^{-10}$	$k_{\text{eq}}$	$0.01017 \pm 0.00038$
$\ell_{\text{eq}}$	$135.8 \pm 2.7$	$\ell_*$	$302.54 \pm 0.56$
$n_b$	$(2.560 \pm 0.054) \times 10^{-7} \text{ cm}^{-3}$	$n_s$	$0.989 \pm 0.018$
$\Omega_b$	$0.0392 \pm 0.0036$	$\Omega_b h^2$	$0.02280 \pm 0.00048$
$\Omega_c$	$0.214 \pm 0.015$	$\Omega_c h^2$	$0.125 \pm 0.010$
$\Omega_\Lambda$	$0.747 \pm 0.018$	$\Omega_m$	$0.253 \pm 0.018$
$\Omega_m h^2$	$0.148 \pm 0.011$	$r_s(z_d)$	$145.0 \pm 5.7 \text{ Mpc}$
$r_s(z_d)/D_v(z = 0.106)$	$0.369 \pm 0.014$	$r_s(z_d)/D_v(z = 0.2)$	$0.2008 \pm 0.0072$
$r_s(z_d)/D_v(z = 0.35)$	$0.1202 \pm 0.0040$	$r_s(z_d)/D_v(z = 0.44)$	$0.0984 \pm 0.0031$
$r_s(z_d)/D_v(z = 0.54)$	$0.0829 \pm 0.0025$	$r_s(z_d)/D_v(z = 0.57)$	$0.0794 \pm 0.0024$
$r_s(z_d)/D_v(z = 0.6)$	$0.0762 \pm 0.0023$	$r_s(z_d)/D_v(z = 0.73)$	$0.0655 \pm 0.0019$
$r_s(z_*)$	$138.8 \pm 5.4$	$R$	$1.711 \pm 0.012$
$\sigma_8$	$0.844 \pm 0.032$	$\sigma_8 \Omega_m^{0.5}$	$0.425 \pm 0.021$
$\sigma_8 \Omega_m^{0.6}$	$0.370 \pm 0.020$	$\alpha_{\text{SNLS}}$	$1.43 \pm 0.11$
$\beta_{\text{SNLS}}$	$3.26 \pm 0.11$	$A_{\text{SZ}}$	$< 1.3 \text{ (95\% CL)}$
$t_0$	$12.94 \pm 0.53 \text{ Gyr}$	$\tau$	$0.089 \pm 0.014$
$\theta_*$	$0.010384 \pm 0.000019$	$\theta_*$	$0.5950 \pm 0.0011^\circ$
$\tau_{\text{rec}}$	$271 \pm 10$	$t_{\text{reion}}$	$420^{+67}_{-68} \text{ Myr}$
$t_*$	$359274^{+13606}_{-13524} \text{ yr}$	$z_d$	$1022.0 \pm 1.6$
$z_{\text{eq}}$	$3149 \pm 81$	$z_{\text{rec}}$	$1089.08^{+0.89}_{-0.88}$
$z_{\text{reion}}$	$10.9 \pm 1.2$	$z_*$	$1091.70^{+0.77}_{-0.78}$

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